



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/700,801 | 11/03/2003 | Alfred Geissler | 0250-130 | 6267 |
| 616 | 7590 | 02/04/2005 | EXAMINER | |
| THE MAXHAM FIRM 750 "B" STREET, SUITE 3100 SAN DIEGO, CA 92101 | | | CADUGAN, ERICA E | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3722 | |

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,801

Applicant(s)

GEISSLER, ALFRED

Examiner

Erica E Cadugan

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Inventorship

1. In view of the papers filed December 20, 2004, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by adding Mr. Robert Jung as an inventor.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "spindle motor" having a "shaft", on a "protruding end" of which is arranged a "bevel gear", which shaft is "for rotating the swivel

Art Unit: 3722

head about the axis of rotation of said head support” as set forth in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

(Note that the shaft 26 on which bevel gear 28 is mounted is not used “for rotating the swivel head about the axis of rotation of said head support” as claimed.)

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Specifically, claim 1 sets forth:

Art Unit: 3722

a spindle motor mounted in the head support, said motor aligned coaxially with respect to said axis of rotation of said head support, and said motor having a shaft for rotating the swivel head about the axis of rotation of the head support; and

a bevel gear arranged on the protruding end of the shaft...

However, as shown in the drawings and described in the specification, the motor that is coaxially “aligned” with the axis of rotation 27 of the head support 1 and which has a “bevel gear” 28 mounted on the protruding end of the “shaft” 26 is spindle motor 22 (see Figure 2). As described in the specification, the shaft 26 of spindle motor 22 which has the bevel gear 28 is used to “drive working spindle 7 through bevel gear 28, bevel wheel 29, sliding gear 33, and radial serrations 35” (see Figure 2 and paragraph 0019 on page 7 of the specification), rather than being used “for rotating the swivel head about the axis of rotation of the head support” as set forth in claim 1. Instead, as shown in Figure 2 and described in the specification, adjusting motor 15, which is not coaxial with the claimed axis of rotation 27 and which does not have a bevel gear arranged on a protruding end of any shaft thereof, is used for rotating the swivel head 5 about the axis of rotation 27 of the head support 1, (by rotating motor housing 21 “about axis of rotation 27 through toothed belt 16, toothed gear 17, pinion 19, and spur ring 20”, see paragraph 0019 and Figure 2).

In other words, even though motor 15 rotates motor 22 (and thus ultimately the shaft 26 of motor 22 to which the bevel gear 28 is attached) about axis 27, it does not appear that the “shaft” 26 of the “spindle motor” 22 is used “for rotating the swivel head” 5 “about the axis of rotation” 27 “of the head support” 1 as claimed in claim 1, i.e., the shaft 26 rotates **with** (emphasis added) the swivel head 6, but is not used to cause the swiveling of the swivel head.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3722

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "several" in claim 1 is a relative term which renders the claim indefinite. The term "several" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 1, there is no frame of reference provided in the claim for determining with respect to what body or structure the 45-degree angle in line 4 of the claim is measured.

There are several positively recited limitations that lack sufficient antecedent bases in the claims. Examples of this are: "the cylindrical hollow housing neck" in claim 5, line 2, and in claim 6, line 2 (note that the housing neck was not previously set forth as "cylindrical" or "hollow"); "said ring" in claim 5, line 2 and claim 6, line 2 (previously "at least one"); "the spindle motor housing" in claims 7, 8, and 9; "the spur ring" in claims 7-8; . This is not meant to be an all-inclusive list of such occurrences. Applicant is required to review the claims and correct any other such occurrences of limitations lacking sufficient antecedent basis.

In claims 10-14, there is no frame of reference provided for determining what is meant by "rear". Note that it does not appear to be a position that is opposite the claimed "front face" (see claim 1 which defines the "front face", claim 10 which defines a "box-like rear portion", and Figure 1).

Claim Rejections - 35 USC § 102

Art Unit: 3722

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

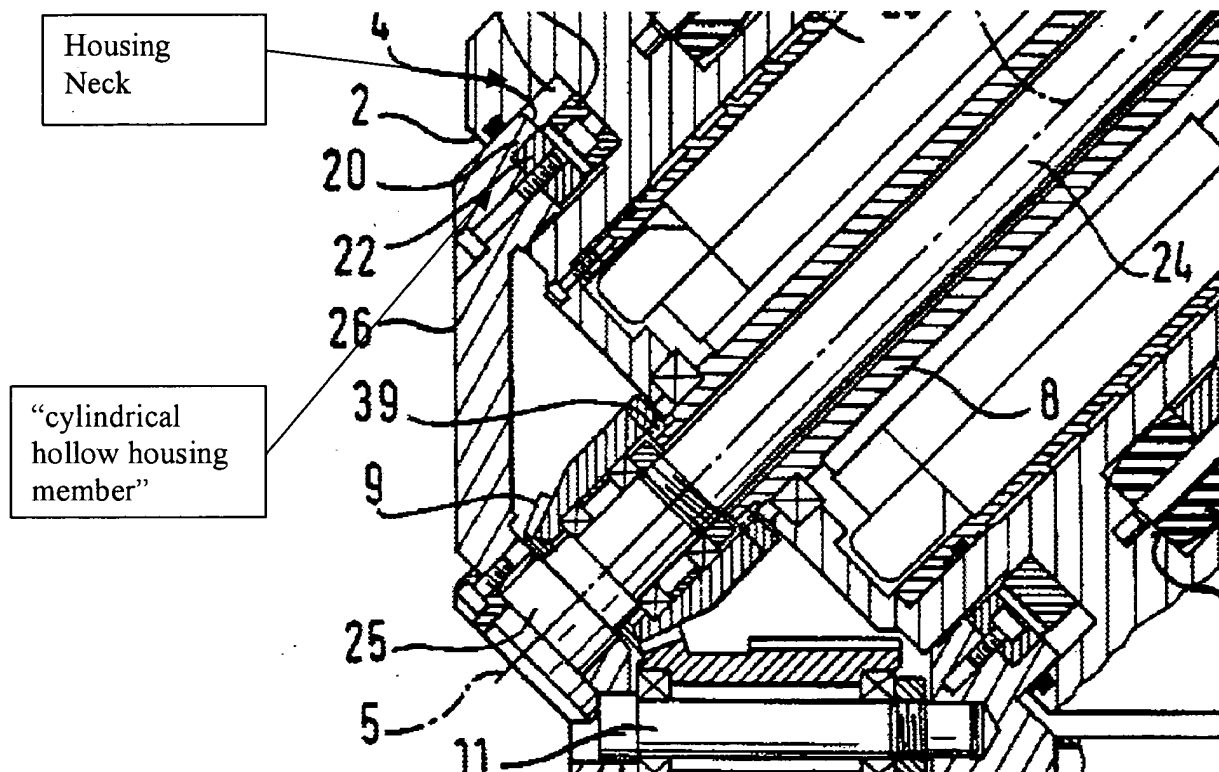
8. Claims 1 and 3, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,533,846 to Geissler.

Geissler teaches a universal milling and drilling machine (see title of invention) that includes a “head support” 1 movable in “several” coordinate axes (see Figure 1, movable in at least the vertical direction via vertical guides 105 and the direction extending into the plane of the paper via guide rails 103). The support has a front face 2 and an axis of rotation 5 “pointing forward and downward by 45°” (see Figures 1-3 and col. 3, lines 32-45, for example). A swivel head 3 is arranged on the front face 2 (see Figures 1-3). A “spindle nose” (where the spindle 6 is located) is fixedly attached to the swivel head 3 (see Figures 2-3). Note that the axis of rotation of the spindle 6 is arranged at an angle of 45 degrees with respect to the swivel axis 5 (see col. 3, lines 40-45 and Figures 1-3).

“Spindle motor” 7 is mounted in the “head support” 1 (Figure 3), and is “aligned coaxially” with respect to swivel axis 5 (see Figure 3 and col. 3, lines 46-48). Motor 7 “has” a shaft 24. At least ultimately “on” the end of shaft 24 that protrudes from “head support” 1, a bevel gear 9 is “arranged” (see Figure 3, see also col. 4, lines 58-60 and col. 5, lines 7-10). Shaft 24 is used to rotate the swivel head 3 about the axis 5 (see Figure 3 and col. 4-5).

Art Unit: 3722

Additionally, the swivel head 3 has a "cylindrical hollow housing member" coaxial with axis 5 that is rotatable within a neck in the "head support" 1. See the partial reproduction of Figure 3 below.



Re claim 3, see col. 3, line 46 through col. 4, line 12, noting that gears 17 and 18 are included in the "speed changing gear arrangement" (see also Figure 3).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3722

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 10, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,533,846 to Geissler as applied to claim 1 above and further in view of U.S. Pat. No. 3,828,649 to Lecailtel et al.

Geissler teaches all aspects of the present invention as set forth in the above rejection based thereon, but does not teach any “external flexible pipe adapted for protecting electrical and liquid lines”.

Lecailtel teaches a swivel head 5 in which is mounted a spindle 6, which swivel head is mounted to frame member or “head support” 26 such that it pivots about axis 7 (see Figure 1, for example). A flexible hose 10, used for protecting electrical and liquid lines (see col. 3, lines 5-13, also Figure 1), is connected between a “box-like” portion that can be considered the “rear” as claimed of the spindle nose portion (where spindle 3 is located) of the swivel head and the frame member 26.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have supplied the external flexible pipe connecting the box-like portion of the spindle nose to the head support as taught by Lecailtel in a corresponding position to the device taught by Geissler for the purpose of facilitating the provision of lubricating and cooling fluids to Geissler’s device as well as providing a protected way of locating any necessary electrical lines, as is implicit in the teachings of Lecailtel (col. 3, lines 5-13).

Art Unit: 3722

Allowable Subject Matter

11. Claims 2, 4, 5, 6, 7-9, and 11-14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

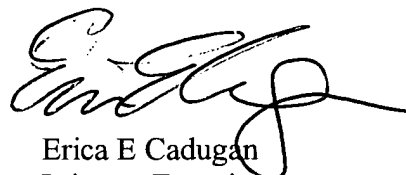
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 7:30 a.m. to 5:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H. Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

Art Unit: 3722

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Erica E Cadugan', with a stylized flourish at the end.

Erica E Cadugan
Primary Examiner
Art Unit 3722

eec
February 3, 2005